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OJIBWAY WIGWAM. INTERIOR OF AN

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Having given, in our last number, some account of the our readers with a view of the interior of an Ojibwa lodge. forms and materials of Indian habitations, we now present who is intimately acquainted with It was d

ing description is also in his own words.

"On lifting the blanket that guards the entrance to an here and there, within the door and around the fire. Ojibwa lodge, you see, first of all, the

have a peculiarly mean, sneaking appearance, half wolf, half dog, with pointed noses, small ears, and so lean and famished withal that you may count every bone under their scarred and tawny skins.

" On the left sits an Indian, the father of the family, on a mat, smoking his pipe, and looking as demure and composed as a philosopher of vore; his pipe resting on the ground, his teeth set firm against the stem, and his head resting on the same. He partially reclines on a mush kemott or bag, containing all his wardrobe. His whole appearance is that of the most perfect apa. thy and quiescence. As for dress, if it be summer, he generally has none, except a cloth around his loins. If it be winter, he may have a close dress, made of furniture calico, with one great, gaudy pattern covering the whole; but it will probably be so besmeared with dirt and fish grease, that neither pattern nor flower can be discerned. He has leggins also, generally of broadcloth, which are sometimes highly embroidered with bead work; sometimes one is blue, and the other red, just as his fancy or taste may suggest. His moccasins are of deer skin; and if he is fond of dress, they too are covered with beads and flowers of stained porcupine quitls; but oftener they are merely a simple covering for the feet, under which, in winter, a piece of blanket, as a substitute for stockings, is

"Beside him stands a muchuk, or box of bark, on which his totem, or family name is inscribed. These boxes are used by the Indians for keeping their sugar, which they make from the sap of the maple. Near it stands the medicine drum, used by the Ojibwas in their religious feasts and dances. Great use is made of these in every Indian lodge, and often in passing through their villages by night, the whole camp is resounding with noise.

"Behind the dogs, on the right, sits his wife, holding in her arms an Indian cradle, on which their youngest-born is bound. You seem at first to be looking on a little mummy, begirt to the chin with bandages, and stretched on a board, instead of a case; but presently the eyes and head move, and you assure yourself that there is a living infant before you. Does it cry or complain? You have only to place it upright on its feet and rock it to and fro, or suspend it on a swing in the middle of the lodge, and hear its Indian mother sing through her teeth, 'Buzz—buzz—buzz,' for its lullaby.

"Near her stands her little son. His hair is daubed with fish grease, and hangs in matted locks upon his shoulders. Neither hands nor face have been washed for a month; and he looks as if encased in dirt. He holds a bow and arrow in his hand. These are the most common playthings of the Ojibwa children.

"Farther in the distance, sits an aged man, perhaps the grandfather of the family, wrapped in a blanket. His apathy is that of a dormouse. He smokes and sleeps,

and eats and starves, by turns.

"A kettle of fish, a few tin cups and pans, a number of small mush kemotts or bags, containing the provisions, wearing apparel, medicines, &c., complete the arrangements of the interior."

The following description of the domestic habits of the Massachusetts Indians, as they were in 1636, we copy from "New England's Prospect, by William Wood.

In winter-time they have all manner of fowls of the water and of the land, and beasts of the land and water, pond-fish, with Catharrs and other roots, Indian beans and clams. In the summer they have all manner of sea-fish, with all sorts of berries. For the ordering of their victuals, they boil or roast them, having large kettles which they traded for with the French long since, and do still buy of the English as their need requires, before they had substantial earthen pots of their own making. Their spits are no other than cloven sticks sharpened at one end to thrust into the ground; into these cloven sticks they thrust the fish or flesh they would have roasted, behemming a round fire with a dozen of spits at a time, turning them as they see occasion.

Some of their scullery having dressed these homely cates, presents it to his guests, dishing it up in a rude manner, placing it on the verdant carpet of the earth which nature spreads them, without either trenchers, napkins, or knives, upon which their hunger-sauced stomachs impatient of delays, fall aboard without scrupling at unwashed hands, without bread, salt, or beer: lolling on the Turkish fashion, not ceasing till their full bellies leave nothing but empty platters; they seldom or never make bread of their Indian corn, but seeth it whole like beans, eating three or four corns with a mouthful of fish or flesh, some. times eating meat first, and corns after. filling chinks with their broth. In sum. mer, when their corn is spent, squouter.

squashes is their best bread, a fruit like a young Pumpkin. It being their fashion to eat all at some times, and sometimes nothing at all in two or three days, wise Providence being a stranger to their wilder ways: they be right Infidels, neither caring for the morrow, or providing for their own families; but as all are fellows at foot-ball, so they all meet friends at the kettle, saving their wives, that dance a Spaniel-like attendance at their backs for their bony fragments. If their imperious occasions cause them to travel, the best of their victuals for their journey is Nocake, (as they call it) which is nothing but Indian corn parched in the hot ashes; the ashes being sifted from it, it is afterward beaten to powder, and put into a long leathern bag, trussed at their back like a knapsack, out of which they take three spoonfulls a day, dividing it into three meals. If it be in winter, and snow be on the ground, they can eat when they please stopping snow after their dusty victuals, which otherwise would feed them little better than a Tiburne halter. In summer they must stay till they meet with a spring or brook, where they may have water to prevent the imminent danger of choaking, with this strange viaticum they will travel four or five days together, with loads fitter for elephants than men. But though they can fare so hardly abroad, at home their chaps must walk night and day as long as they have it. They keep no set meals, their store being spent, they champ on the bit, till they meet with fresh supplies, either from their own endeavors, or their wives industry, who trudge to the Clambanks when all other means fail. Though they be sometimes scanted, yet are they as free as emperors, both to their countrymen and English: be he stranger, or near acquaintance; counting it a great discourtesy, not to eat of their high-conceited delicates, and sup of their un-oat-mealed broth, made thick with fishes, fowls, and beasts boiled all together; some remaining raw, the rest converted by over-much seething to a loathed mash, not half so good as Irish Boniclapper.

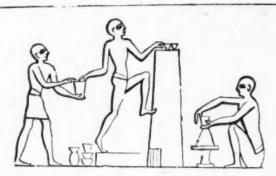
Indians at the Falls of the Columbia.— About seven hundred miles from Fort George, says Coxe, in 1812, and ninety from Spokan House, there is an immense fall in the Columbia, between sixty and seventy feet perpendicular at low water, and about forty-five in the spring and early part of the summer, when the melting of the snow contributes to swell

the mighty torrent. The basin at the foot of the cascade resembles a boiling cauldron, in consequence of which the fall is called "La Chaudiere." A small tribe, called "Les Chaudieres," reside at this place: their village is situated on the north side, just below the fall, where they remain the greater part of the year. They take little beaver; but their lands are well stocked with game and fish; there is also abundance of wild fruit, such as choke-cherries, currants, small strawberries, with black and blue berries. They take vast quantites of salmon, which they dry and preserve for use during the winter and spring months. Cleanliness cannot be ranked among their virtues. Their habitations are filthy in the extreme, and the surrounding atmosphere is impregnated with the most noxious effluvia, produced by the piscatory offals which lie scattered about their dwellings. I visited their village in September in company with my friend M'Donald, his wife, some of her relations, and two of our own men. They received us in a friendly manner, and treated us to abundance of roast and boiled salmon.

We visited a small tribe, consisting of not more than fifteen families, who occupied a few hunting lodges about midway between Spokan House and the Chaudière falls. The chief of this tribe is an extraordinary being.

His dwelling was covered with large deer-skins, and was completely water-proof. The interior was remarkably clean, and spread over with mats. In one corner he had a stock of dried provisions, stored in leather and mat bags, which in periods of scarcity he shared liberally among the tribe; in fact he wanted nothing that could add to his happiness or comfort, and possessed a degree of calm contentment uncommon among savages, and which would put to the blush much of the philosophical wisdom of civilized man.

The habitations of a people necessarily have much influence upon their social state; while their social state in some degree affects their habits in constructing houses. Most of the dwellings of the Indians are slight, small, inconvenient, uncomfortable and frequently changed, so that many obstacles to improvement must lie in the way, until a better style is introduced.



ANCIENT EGYPTIAN POTTERS.

This outline copy of one of the numerous groups found painted on the walls of some of the ancient Egyptian edifices, gives some ideas of one branch of manufactures carried on by that remarkable people. We have before given a similar representation of their mode of brickmaking. One man is here seen in the act of moulding a vessel with his hand, apparently with the use of a wheel; another is handing to the third vessels which have been hardened and sun-dried, ready for the furnace.

We add, from notes of one of Mr. Gliddon's lectures, the following interesting remarks on the industry and skill of the Egyptians.

Geologically considered, Egypt is a very peculiar country, the quarries of different kinds of stone, lying at great distances from each other in distinctly marked localities. If you see a piece of basalt on the beach of the Mediterranean, you know that there is no basaltic quarry nearer than between the 1st and 2d cataract; and, when you find a block of granite at Memphis, you know that no granite exists but at the first cataract-nearer than the peninsula of Mount Sinai. Early civilization and extended dominion are indicated in these facts, and when we reflect upon them, we almost think we witness the work of transportation going on; that we see the builders, and the buildings themselves in process of erec-

The blocks of Arabian limestone used in the interior of the pyramids were brought from the ancient quarries of Toorah, on the opposite side of the Nile, distant about 15 or 20 miles from each pyramid. These very quarries are vast halls as it were excavated in the living Rock, wherein entire armies might encamp, are adorned with now mutilated tablets recording the age of their respective opening by different Pharaohs, not only show the very beds whence the stupendous blocks of some of the pyramids were taken; but are in themselves, works as wondrous and sublime as the Memphis Pyramid! nay, at the very foot of these quarries, lie the countless tombs and Sarcophagi of unnumbered generations of ancient quarrymen! These quarries are of intense archæological interest, because the tablets in them record that stone was cut in them for Memphis, on such a day, such month, such a year of the reign of such a king; and these kings begin from the remote times before the 16th dynasty, and, at different intervals come down through the Pharaonic period with many of the others, till we reach the Ptolemaic epoch-and end with Latin inscriptions similar to others in Egypt, attesting that "these quarries were worked" in the propitious era of our Lords and Emperors Severus and Antoninus, thus enabling us to descend almost step by step from the remote antiquity of 2200 years B. C., down to 200 years after the Christian era. The hand of modern barbarism, prompted by the destructiveness of Mohammed Ali has since 1830 done more to deface these tablets-to blow up many of these halls in sheer wantonness than has been effected by time in 4000 years!

Every atom of the hundred thousand tons of granite used in the pyramids was cut at Syene, the 1st cataract distant 640 miles. The blocks, some of which are 40 feet long, had to be cut out of their beds with wooden wedges and copper chisels; then polished with emery till they were as smooth as a looking glass, and then carried by land half a mile to the river—placed on rafts and floated down 640 miles to

Memphis-brought by canals to the foot of the Lybian chain-conveyed by land over gigantic causeways from one mile to three in length to the pyramids for which they were intended, and then elevated by machinery and placed in their present position, with a skill, and a masonic precision that has confounded the most scientific European engineer with amazement! very basalt sarcophagi that once held the mummy of the Pharaohs, in the inmost recesses of these pyramidal mausolea, 8 1-2 feet long by 3 1-2 broad and 3 deep were all brought from Lower Nubia, from the basaltic quarries of the 2nd cataract, not nearer than 750 miles up the river.

Looking into the interior of the pyramids, there is still much to stagger beliefto excite our admiration. In the pyramid of five steps, the upper beams that support the roof of the chamber are of oak, larch, and cedar, not one of which trees grows in Egypt, and establish the fact of the timber trade with Illyria, Asia Minor, and Mount Lebanon in ages long before Abraham! In the fragments of a mummy the cloth is found to be saturated with the " Pissasphaltum"-Jews' pitch or bitumen Judiacum, compounded of vegetable pitch from the Archipelago, and of asphaltum of the Dead Sea in Palestine; we find Gum Arabic that does not grow nearer than 1200 miles from the pyramid, attesting commerce with Upper Nubia. The gold leaf came from the mines of Suakim on the Red Sea, or from remote Fazoglu. The liquor which cleansed out the body of the mummy was Cedria the fluid rosin of the pinus cedrusthat grows not nearer than Syria. The spices send us to the Indian Ocean-the aloes to Succotra-the cinnamon to Ceylon, the ancient Taprohane-and then the arts and sciences brought to bear upon the pyramids that must have arrived at perfection long before that day are not only themes for endless reflections, but oblige us to confess that in knowledge we are yet children!

Earthquake at Talcahuano and Concepcion about ten years ago.—" While the ship was beating up to the anchorage, I landed on the island of Quiriquina. The mayor-domo of the estate quickly rode down to tell me the terrible news of the great earthquake of the 20th,—'That not a house in Concepcion or Talcahuano (the port) was standing; that seventy villages were destroyed; and that a great wave had a most washed away the ruins of Talcahuano.' Of this latter statement I soon saw abundant proofs—the whole coast being strewed over with timber and furniture as if a thousand ships had been

wrecked. Besides chairs, tables, book-shelves, &c., in great numbers, there were several roofs of cottages, which had been transported almost whole. The storehouses at Talcahuano had been burst open, and great bags of cotton, yerba, and other valuable merchandise were scattered on the shore. During my walk round the island, I observed that numerous fragments of rock, which, from the marine productions adhering to them, must recently have been lying in deep water, had been cast up on the high beach; one of these was six feet long, three broad, and two thick.

"The island itself as plainly showed the overwhelming power of the earthquake, as the beach did that of the consequent great wave. The ground in many parts was fissured in north and south lines, perhaps caused by the yielding of the parallel and steep sides of this narrow island .- Some of the fissures near the cliffs were a yard wide. Many enormous masses had already fallen on the beach; and the inhabitants thought that when the rains commenced far greater slips would happen. The effect of the vibration on the hard primary slate, which composes the foundation of the island, was still more curious; the superficial parts of some narrow ridges were as completely shivered as if they had been blasted by gunpowder. This ef-fect, which was rendered conspicuous by the fresh fractures and displaced soil, must be confined to near the surface, for otherwise there would not exist a block of solid rock throughout Chile; nor is this improbable, as it is known that the surface of a vibrating body is effected differently from the central part. It is, perhaps, owing to this same reason, that earthquakes do not cause quite such terrific havoc within deep mines as would be expected. I believe this convulsion has been more effectual in lessening the size of the island of Quiriquina, than the ordinary wearand-tear of the sea and weather during the course of a whole century.

"The next day I landed at Talcahuano, and afterwards rode to Concepcion. Both towns presented the most awful yet interesting spectacle I ever beheld. To a person who had formerly known them, it possibly might have still been more impressive; for the ruins were so mingled together, and the whole scene possessed so little the air of a habitable place, that it was scarcely possible to imagine its former condition. The earthquake commenced at half past eleven o'clock in the forenoon. If it had happened in the middle of the night, the greater number of the inhabitants (which in this one province amount to many thousands) must have perished, instead of less than a hundred; as it was, the invariable practice of running out of doors at the first trembling of the ground, alone saved them. In Concepcion, each house, or row of houses, stood by itself, a heap or line of ruins; but in Talcahuano, owing to the great wave, little more than one layer of bricks, tiles, and timber, with

here and there part of a wall, left standing, could be distinguished. From this circumstance, Concepcion, although not so com-pletely desolated, was a more terrible, and, if I may so call it, picturesque sight. The first shock was very sudden. The majorfirst shock was very sudden. The major-domo at Quiriquina told me, that the first notice he received of it, was finding both the horse he rode and himself rolling together on the ground. Rising up, he was again thrown down. He also told me that some cows which were standing on the steep side of the island were rolled into the sea. The great wave caused the destruction of many cattle; on one low island, near the head of the bay, seventy animals were washed off and drowned. It is generally thought that this has been the worst earthquake ever recorded in Chile; but as the very severe ones occur only after long intervals, this cannot easily be known; nor indeed would a much worse shock have made any great difference, for the ruin was now complete. Innumerable small tremblings followed the great earthquake, and within the first twelve days no less than three hundred were counted.

"The most remarkable effect of this great earthquake was the permanent upraising of the land no less than three feet. The island of Juan Fernandez—memorable as the solitary residence for years of Alexander Selkirk, a shipwrecked sailor—was so violently affected, though distant from Concepcion 360 miles to the northeast, that the trees smote against each other, and there burst forth a volcano under water close to the shore. In the Cordilleras, also, two volcanoes opened at the same moment into violent action, which probably relieved the earth of the upheaving torces that Jisturbed her."—Darwin's Journal.

"Death of the old brown Dog."—Under this head all the Cincinnati papers lately had editorial notices of the death of a remarkable dog of that city, well known to the "oldest inhabitant." The Herald says that for twenty years past he has resided there and has generally signalized himself by attending with great sobriety, all grand processions. He was buried with due honors in the yard belonging to the Gazette buildings, and it is in contemplation, we learn, to rear a monument to his memory. Mr. Cist in his Advertiser, has the following notice of him:

"One of the greatest curiosities of Cincinnati is Lear, the old brown dog, who may be seen at almost any hour of the day in the purlieus of our city post office, and as he has not and probably never had any owner, may be numbered as one of the familiars of that establishment.

Amidst the various succession of postmasters—during the whole incumbencies of Burke, Taylor and Crawford—amidst all the presidential changes of Monroe, Adams, Jackson, Van Buren, Harrison, Tyler and Polk, he still holds his post. How far back he made his first appearance the oldest inhabitant cannot tell, but I can find several
who have known and recollect him for
twenty years and more. During this period
he was never known to follow any individual,
even when tempted by caresses or the offer
of food: in fact he has never been known to
receive food from any person, invariably refusing it when offered at his post. He has
been followed by persons curious to ascertain
where he feeds, but by some singular process contrives to defeat their purpose, by
disappearing the moment their eye is turned
to any other object if but for one moment.

In each successive removal of the post office, he has always gone along, as if considering himself a part of the establishment. In the last case following the first dray load of moveables, and remaining at the new

office ever since.

He attends all firemen's parades, military processions, political mass meetings, and every funeral of note in the city. At the funeral pageant, last year, in memory of General Jackson, he crawled under the hearse, and kept under it the whole route—nearly two miles—although considerably exhausted by the effort, the day being uncom-

monly sultry and close. During the whole course of his long life, he has never been known to be meddled with by other dogs, or to have taken any notice of his species, nor to have received any ill usage from any individual, man or boy, by whom he is extensively known and regarded as a privileged character. Hundreds having business at the post office, who would unhesitatingly kick any other dog out of the road, step aside carefully, however great the throng, rather than tread on or insult the noble brute. He may be seen occasionally sunning himself at the door of the Trust Company or Franklin Bank, or the Bank Exchange, but is never guilty of lying at the door of a private residence. friend, Rabbi Jonas, who believes in the transmigration of souls, suggests that the spirit which animates Lear, was once that of a public officer and an individual of the most aristocratic bearing. Apart from the usual instincts and remarkable sagacity of dogs, there is much that is mysteriously unaccountable in the history and habits of Lear, a part only of which are here stated."

To Remove Ink Spots.—Wet the place immediately with sorrel or lemon juice, and rub on it hard white soap. Ink or iron mould may be removed by holding over a vessel of boiling water, and squeezing on the juice of sorrel, then rubbing with dry salt.

Industry.—If you have great talents, industry will improve them; if you have but moderate abilities, industry will supply the deficiency. Nothing is to be obtained without it.

THE COPPER REGION OF LAKE SUPERIOR.

(From Letters in the Zanesville (Ohio) Courier.)

PORTER'S ISLAND, June 22d, 1846. We arrived here about ten days ago, and since that time, have been actively employed in examining locations and visiting the principal ravines. From Sault Ste Marie to this place, the distance is about 180 miles in a direct line. The true entrance to Lake Superior is between Point Iroquois on the south and Gros Cap on the north. These are bold headlands, situated about 9 miles from the Sault, after passing which the lake begins to expand, but it is not until you get beyond White Fish Point, distance 45 miles, that you lose sight of land. After passing that point, you launch out into a boundless waste of waters, and the first land you discern, are the lofty ridges of trap and conglomerate, that form the head of Keweenaw Point. Formerly, before the introduction of schooners upon the lake, this point was gained by coasting, in canoes and batteaux, and the distance traversed was about two hundred and seventyfive miles. By pursuing the former course, you lose sight of much of the most beautiful scenery of the lake and perhaps of the world, among which may be reckoned the Pictured Rocks, or Les Portailles, as they are called by the French voyageurs, a name quite as appropriate and descriptive. Point Iroquois takes its name from the massacre of a large portion of that tribe of Indians, as far back as 1610. The Indians call it Nadowa-ga-quin-ing-the place of Indian bones-for long after that event they lay bleaching on the battle field. Henry, one of the earliest travellers in this region, gives the following account of the massacre. The Iroquois having made war upon the Chippeways with the design of dispossessing them of their territory, encamped a thousand strong, upon this point, when thinking themselves secure from their numbers, they indulged in feasting on the bodies of their prisoners. The sight, however, of the sufferings and immolation of their kindred and friends, so wrought upon the Chippeways who beheld them from the opposite shore, that they determined to avenge their deaths or perish in the attempt. With the largest number of warriors they could collect, but which amounted to

only three hundred, they crossed the

channel. The night was dark and rainy, which favored their project. The Iroquois, unconscious of danger, were in the midst of their revels, and their warsong was occasionally heard by their concealed foe. When, at length, their camp was quiet and the occupants were supposed to be buried in sleep, the Chippeways fell upon them, and so fierce was the onset, that but few escaped to tell the tale of their disaster. The Chippeways lost but a single man, and he died of a wound received from an old squaw who stabbed him with an awl.

From White Fish Point to some distance above Grand Sable the shore is lined with steep sandy cliffs, rising to the height of 200 or 300 feet, and occasionally sustaining a sickly growth of evergreens, but for the most part the shore presents a bleak and desolate appear-Ten or twelve miles below Grand Island commences a series of Sandstone bluffs, which extend to Granite Point, occasionally attaining a height of 300 or 400 feet above the lake. In this range occur the famous Pictured Rocks which rise perpendicularly out of the lake to the height of 400 feet, and present a bold mural escarpment, so that for a distance of ten miles there is no landing. It is only, then, during the calmest weather, that this great natural curiosity can be inspected. This immense wall does not extend in a straight line, but is composed of a succession of curves, so uniform in their appearance as to resemble huge battlements compared with which all human structures dwindle into insignificance. The ruins from above, in the course of ages, have grooved out im-mense furrows, whilst the waves from below have excavated arched caverns into their sides far beyond the reach of human ken. The entrance to one of these is about 30 feet wide and 60 high, and after passing the gateway, it expands into an immense rotunda. Every surge from the lake carries the process of excavation still further into the rock, and as it rushes booming into the caverns, produces musical echoes which are heard far around. Thus by the action of the elements have been constructed castles and domes, arches and minarets, far surpassing in grandeur and magnificence the proudest monuments of human art.

Grand Island is a continuation of this formation, but, in the strife by which it was detached from the main land, the

waves excavated portions of the rock and left others standing, so that at a distance the voyageur imagines that he is coming to some friendly city with its domes and turrets, instead of a bleak and rock-bound shore. There is a tradition connected with this island, which is thus related by Schoolcraft. A party of thirteen Chippeways left this place to go to war with the Sioux. They took a runner to witness their conduct in the war, and bear the tidings to their kindred. This they did because they had been reproached with cowardice. They soon fell in with an advanced party of the enemy, most of whom they slew. The balance then attacked them, but they scorned to fly, and fought on resolutely until overpowed by numbers they all fell. The runner escaped unharmed, and recounted to his tribe their deeds of valor.

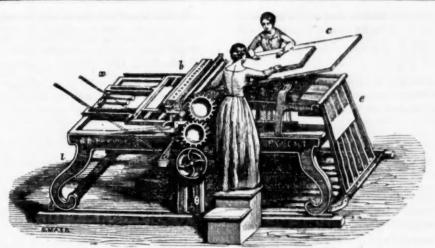
At Granite Point, the granite breaks through the sandstone, forming hills from 200 to 300 feet high, and extends thence in a southwesterly direction, through the northern peninsula of Michigan. forms the back bone, or what Geologists term the "anteclinal axis" of the mineral region, and is flanked by sandstone extending on Keweenaw Point, as far as Bay de Gris. There the conglomerate, a rock made up of large rounded pebbles of sandstones and porphyry cemented with a red, iron sand, makes its appearance resting on the trap. Between that Point and the little Montreal river, which forms the boundary between Michigan and Wisconsin, the country is composed of alternate ridges of trap and conglomerate, running in a N. E. and S. W. direction. These ridges are traversed occasionally with veins running generally at right angles with the prolongation of the ridges, the matrix of which consists of calc spar, prehnite, chlorite or amigdaloidal trap, which, in some cases, are metalliferous. The copper occurs most frequently native, but the black and grey sulphuret, the red and black oxide, and the green carbonate or silicate, are not unusual. Silver is also associated with most of these ores, frequently in so small quantities as to be too unproductive, but at Copper Falls, Eagle River, and the Pittsburgh or Cliff mines, it is found in such abundance as to be far more valuable than the Copper.

Such is a brief outline of the Geology.

Professor Liebig .- From the German papers recently received, we have gathered some interesting particulars respecting the life and labors of this distinguished chemist. He has lately been elevated to the rank of baron by his sovereign, the Grand Duke of Hesse Darmstadt. On his appearance at the capital, to present himself to the Duke, and render his acknowledgements for the honor conferred upon him, he was invited to the ducal table, and received by the court with the greatest distinction. The Grand Duke especially took occasion to thank him for his refusal of the many attractive invitations which he has received from various quarters, and for his fixed determination to remain in the land of his birth, and in his present sphere of usefulness and honor in the University of Giessen. A correspondent of the Augsburg Gazette, writing from Darmstadt, after mentioning these facts concerning Liebig's reception at court, presents some details concerning his ordinary professional labors. The central point of all these labors is his great chemical laboratory which is described as "a building, some years ago greatly enlarged, and amply furnished, which stretches along the southern side of the town of Gies-sen." Liebig has three assistants constantly at hand, who wait upon his every move-

He delivers lectures every day from 11 to 12, accompanied by practical experiments. In the remaining part of the day, he super-intends the labors of numerous pupils in the various departments of the laboratory, or withdraws to his study, adjoining which is his private laboratory, where he is either oc-cupied himself or his private assisiant under his direction. Notwithstanding the extent of his public establishment, it was found insufficient for the accommodation of his numerous pupils. On this account Liebeg erected, not long ago, at his own expense, a large building as a sub-laboratory, and in which beginners receive their preliminary educa-tion. To these details of Liebig's public life, may be added another item of a private nature.-The civil authorities of Giessen have lately presented him with an estate, on the outskirts of the town, having on it a country house surrounded by a park, and containing an arena of fifteen acres of land, mostly of sandy soil. The land is to be put in order for cultivation, and to be employed by Professor Liebig chiefly in experiments on agricultural chemistry .- Bos. Paper.

Valuable Composition.—Eight parts of Zinc, one of copper and one of iron, being combined by melting together, forms alloy as hard as brass; is very tenacious, and when exposed to the atmosphere and moisture will not oxidize and become tarnished. It is said to flow freely in casting, and will not adhere even to a metallic mould.



A STEAM PRINTING-PRESS.

We have deferred, much longer than we intended, the description we promised our readers in the first volume, of an improved printing press. We gave descriptions of the old Ramage press (page 327, Vol. I.), and the first improvements made, with engravings, on pages 326 and 343, Vol. I. We now proceed, briefly, to speak of the plan of the Cylinder Presses, which, under various forms, and of different sizes, now perform a great part of the most rapid printing done in this country, as well as in England and France, so far as our information extends.

But let the reader consider, for a moment, the inconveniences attending the operation of printing on the old presses, which had been in use, we have substantial reasons for believing, for three cen-1st. The form of turies and more. types must be beaten hard, with two large cotton balls, covered with leather, and bespread with glutinous ink, which sufficiently employed one man. 2d. The sheet of paper must be placed on the tympan, and laid down upon the bed of type, after being confined by the frisket (see Vol. I. page 328). 3d. The form must be moved, with the bed, its whole length, by the other man, before each impression, in order to place it under a square board, called the platten, which was to

be pressed down upon it. This movement was effected by a windlas, turned by the left hand. 4th. The lever of the screw was pulled by his right hand, to give the impression. 5th. The bed must be drawn back by a reverse movement of the windlas. 6th. The tympan must be raised, the frisket thrown up, and the sheet, now printed on one side, taken off and laid upon a heap, to make way for the next; which must go through the All this time the pressman first mentioned was beating his balls together, to keep the ink spread equally upon their surfaces, occasionally putting on a little more. We have a copy of an old picture of an ancient Dutch printingoffice, in a Paris penny paper, which represents this same operation as carried on early in the 16th century. Indeed, it is enough to impress one rather seriously of the amount of labor performed by printers during the first three centuries and more which succeeded the invention on the art in Europe, to reflect upon the innumerable books which were produced; many of them of enormous size. Truly, we men of the 19th century owe much to some of our predecessors, who had a desperate contest to carry on against ignorance and superstition, but were happily borne through. With all this severe personal labor, the best presses and the best workmen rarely pretended to work off more than two thousand sheets in a day; or half that number printed on both sides.

We may now turn to the press at the head of this article. The bed of type b was placed, as before, on horizontal supporters, but, so that it might be moved with the utmost ease, running over small friction-wheels. Over it was the inkingroller, made of a compound of glue and molasses, and nearly of the consistency of India-rubber, which was moved by the passage of the bed, and had the ink supplied and distributed by several other rollers, moved by cog-wheels. The sheets of paper were pushed forward, one by one, by a boy or girl, from a heap on the supply board, c, and seized by nippers, tapes and cords, which moved it smooth and with unvarying certainty to the cylinder, and round it, just in time to meet the bed of type as it came from under the inking-roller, and was passing under the cylinder. In an instant the impression is given, and the sheet is moved away by the tapes and cords, which resume their motion, and carry it under the supply board, where another boy waits to receive it.

The heavy bed of type now reaches the end of its course in this direction, and is to return. It strikes a spiral spring and rebounds, while the cog-wheel which brought it in thus far is instantly reversed by the turning of an universal joint, and back it flies to the other extremity of the machine. One of the most surprising parts of the complex operation was the lifting of the cylinder, which was raised by small springs just in time to let the bed pass under without touching. All these movements were given to the different parts by a single heavy fly-wheel, at first turned by one or two men, afterwards by a mule, and now by steam.

The original inventor of a press of this kind was an ingenious Scotchman,

of a most estimable and religious character, named Napier, who brought it into use in London about the year 1824. The first ever in this country was brought out by Mr. John M. Walker, one of the proprietors of the New York Daily Advertiser; who went to England to procure it for the use of that paper and the New York American. After it had printed those papers for some time, Mr. Hoe of this city began to construct presses on the same plan, and after making various improvements, he and other ingenious American mechanics have supplied the country with multitudes of excellent construction and most rapid execution. Cylinder-presses, double as well as single, are now very numerous, and may be heard at all hours of the night as well as of the day rumbling and rattling, in basement stories, in cellars, and even under the sidewalks-especially in neighborhoods where daily newspapers are printed-as in the upper parts of Nassau street, Ann street, &c. When there is great news, and the people and newsboys crowd around the doors for the new edition, the steam is often pressed. and the movement hurried so fast that, instead of 250, not less than 4,000! sheets are printed in an hour on one doublecylinder press.

The Indian Treaty.—The Austin (Texas) Democrat, gives the particulars of the treaty concluded between Gov. Butler, the U. S. Commissioner, and various tribes of Indians, at the Council Springs, upon the Upper Brazos, on May 16th. Eleven tribes were fully represented, and all the chiefs signed the treaty, and declared their determination to assist in punishing all who might violate it. One of the objects of the delegation of Indians who have accompanied Gov. Butler to Washington City, is to fix upon a line of boundary, within which to restrict the occupation of the Indians. The points settled by the treaty are thus enumerated:

The Indians acknowledge themselves under the protection of the United States, and recognize no other authority, pledging themselves to perpetuate amity and friendship

with the people of the U. States, and all other friendly Indians. They agree not to form alliances with the enemies of the country, and to give notice of any contemplated invasion or impending danger. Each tribe is to give notice of any violation of the treaty on the part of any other. They are to give up all prisoners, and aid the authorities up all of the United States in obtaining them. They pledge themselves to desist from all murder and depredation, and surrender all offenders, to be tried by the laws of the United States. The United States have the right to establish agencies and trading houses among them, and to establish military posts, &c. They concede to the United States the right of control over all trade and intercourse, and will, in no instance, seek personal redress for injuries either to persons or property, but will in such cases apply to the U. States agent. They concede the right to introduce among them ministers of the Gospel and school They agree to prohibit the introteachers. duction of spirituous liquors among them, and to give notice of the violation of this provision. The United Sates, in consideration of these stipulations on the part of several Indian tribes represented at the treaty, agree to make peace for them with all their enemies, to give them presents every fall, &c., as usual in similar treaties. E-se-qua-t-as and Mescalaros, numbering together about 5000 souls, who are branches of the Lipans and allies of the Camanches, and came recently from the Mexican prairies, are included among the tribes represented at the treaty. The Camanches are anxious to conciliate them.

An Amazonian Forest .- "The road leads nearly the whole way through a deep un-broken forest, of a density and a magnitude of which I had, before penetrating it, but a faint conception. Notwithstanding this 15 one of the most public roads leading to or from the city, yet it is only for a short distance passable for carriages: indeed, the branches of trees are not unfrequently in the way of the rider on horseback. A negro is sent through the path periodically with a sabre, to clip the increasing foliage and branches before they be:ome too formidable: thus the road is kept open and pleasant. Notwithstanding the heat of the sun in these regions at noonday, and the danger of too much exposure to its rays, yet an agreeable coolness always pervades those retreats of an Amazonian forest, whose lofty and um-brageous canopy is almost impenetrable. The brilliancy of the sun's glare is mellowed by innumerable reflections upon the polished surface of the leaves. Many of the trees are remarkably straight, and very tall .- Some of them are decked from top to bottom with splendid flowers and parasites, while the trunks and boughs of nearly all are interlaced with innumerable runners and creeping vines.

"These plants form a singular feature of the more fertile regions of Brazil. But it is

on the borders of the Amazon that they appear in their greatest strength and luxuriance. They twist around the trees, climbing up to their tops, then grow down to the ground, and taking root, spring up again, and cross from bough to bough and from tree to tree, wherever the wind carries their limber shoots, till the whole woods are hung with their This vegetable cord is somegarlanding. times so closely interwoven that it has the appearance of net-work, which neither birds nor beasts can easily pass through. Some of the stems are as thick, as a man's arm. They are round or square, and sometimes triangular, and even pentangular. They grow in knots and screws, and indeed in every possible contortion to which they may be bent. To break them is impossible.-Sometimes they kill the tree which supports them, and occasionally remain standing erect, like a twisted column, after the trunk which they have strangled has mouldered within their involutions. Monkeys delight to ply their gambols upon this wild rigging; but they are now scarce in the neighborhood of Para. Occasionally their chatter is heard at a distance, mingled with the shrill cry of birds; but generally a deep stillness prevails, addiag grandeur to the native majesty of these forests."-Kidder's Brazil.

The Greatest Iron Gun ever Cast Yet .-Yesterday afternoon another stupendous piece of ordnance was cast at Algier's Foundry, South Boston, which, when finished, will exceed Capt. Stockton's celebrated "Peacemaker," by 5000 pounds in weight. arrangements for the operation were commenced in the morning, by filling the furnaces with metal, and firing up. The quantity of metal used was about 46,000 pounds, and the amount of coal consumed in reducing it to the requisite state of fusion was eight chaldrons. At 6 o'clock, P. M., repeated experiments having been made with it in small quantities, the metal was pronounced to be in a fit condition for use, and the grand operation of casting was commenced. The two furnaces were tapped, and the boiling and blazing liquid gushed forth, rushing and leaping through the iron canals, which emptied into the sides of the mould, sunk twelve feet into the ground. The flaming streams continued to run for fifteen minutes down through the iron flask, or shell of the mould, the metal in the meantime bubbling and revolving as it rose in the inner shaft of sand, which in fact formed the actual mould for the cannon. The metal having reached the level of the mould, a supplementary or cap mould was put, and filled with some tons of metal poured it from a crane ladle.

The object of this addition is to give, by means of dead weight above, steadiness to the process of chrystalization in that portion of the mass out of which the cannon is to be turned. Ten days will elapse before the metal will become sufficiently cool to admit

of the removal of the flask, by digging away the compact ground in which it stands embedded; and then, in the space of five weeks, the gun can be finished and got ready for mounting on Fort George, in our harbor, for which it is designed.

The casting was done under the personal supervision of Mr. Alger and Col. Bomford, the inventor of this species of ordnance, to the first specimen of which Thos. Jefferson, in 1809, gave the name of the "Columbiad."

The weight of the gun, when finished, will be 25,000 pounds. Length, 10 feet; diameter at the base ring, 39 inches; length of chamber, 13 inches; diameter of chamber, 9 inches; length of bore, 9 feet 1 in.; diameter of bore, 12 inch. Weight of round shot which it will carry, 230 lbs.; weight of shell, 180 lbs. Range of shot or shell, 3½ miles—being ½ of a mile greater than the recorded performance of the largest and lates invented mortar in England, and half a mile beyond the reach of any gun in the castle of San Juan de Ulloa, at Vera Cruz.

The cost of this immense instrument for harbor defence will not exceed \$1700; or one sixth of the cost of the wrought iron gun procured in England by Capt. Stockton.

MEXICAN RANCHEROS.

The Ledger gives the following description of these people. The Rancheros, part of the material of the Mexican army, are half Indian and half Spanish in their extraction: gaunt, shrivelled, though muscular in their frames, and dark and swarthy visaged: these men are the Alabs of the American continent. Living half of the time in the sad-dle, for they are unrivalled horsemen, with lasso in hand, they traverse the vast plains in search of the buffalo and wild horse. The killing of these animals, and the preparation and sale of their hides, are their sole means of livelihood. Their costume generally consists of a pair of tough hide leggings, with saddles of the same material, bound together with leathern thongs, over which is a blanket with a hole in the centre large enough to allow the head to be thrust out, and which falls not ungracefully over their shoulders, leaving ample room for the play of their arms. Add to this a broad straw sombrero, and the lasso hanging ready for use in his girdle, and you have the Ranchero as he appears in time of peace. Join to this a lance with a sharp spear head, and his belt plentifully supplied with pistols and knives, and you have the Ranchero as a member of a troop of banditti, or a soldier in a body of cavalry. Their power of enduring fatigue is almost inexhaustible, and a scanty meal per day of jerk beef and plantain suffices them during months. These are the men who comprise the great body of the Mexican cavalry, and they are to the armies of that nation what the Cossacks are to the Russian-ever on the alert; never to be surprised, and untiring in the pursuit of the foe, when plunder, no matter how trifling, is to be obtained.

PODTBY.

FRIENDS ARE ALL AROUND US.

Friends are all around us,
Even the little child
Loves the stranger whom he met
Who looked on him and smiled.
Friends are all around us,
If as friends we greet
Those whom in our journeying
On life's worn way we meet.

Friends are all around us;

By a kindly word,

By a look of sympathy

The loneliest heart is stirred.

Do not all our footsteps

To the same home tend?

Why should not each one of us

Be to each a friend?

Does the pure dew, glistening
On the fair wild rose,
Shun the dark, unlovely weed
That beside it grows?
Does the sun beam, shining
On the stately dome,
Lose its lustre when it rests
On the peasant's home?

If one heart grows lighter
By our words made glad—
If one weary spirit,
Drooping, faint and sad,
Half forgets its anguish
For a little while—
Is it vain for us to speak
Vain for us to smile?

One word kindly spoken,
Simple though it be,
Is often sweetest music
In the hour of agony;
One look, kindly given,
When the lips move not,
May be treasured in the heart,
Ne'er to be forgot.

There's an "open sesame"
To each human heart,
At whose magic sound, at once
Freely thrown apart,
Are the close-barred portals
Of its deepest cell,
Bidding us in friendship's name
Enter in and dwell.

Friends are all around us:—
There's a gentle tone
Whereso'er we wander,
Answering to our own.
Do not all our footsteps
To the same home tend?
Why should not each one of us
Be to each a friend?—Selected.

HOW TO GROW RICH.

In the first place, make up your mind to accomplish whatever you undertake, decide upon some particular employment, and then persevere in it. "All difficulties are overcome by dilligence and assiduity."

Be not afraid to work with your own hands, and dilligently too. "A cat in gloves catches no mice." "He who remains in the mill grinds, not he who goes and comes."

Attend to your own business, and never trust it to another. "A pot that belongs to many, is ill stirred and worse boiled."

Be frugal. "That which will not make a pot, will make a pot-lid." "Save the pence, and the pounds will take care of themselves."

Be abstemious. "Who danties love, shall beggars prove."

Rise early. "The sleeping fox catches no poultry." "Plow deep while sluggards sleep, and you will have corn to sell and keep."

Treat every one with respect and civility. "Every thing is gained and nothing lost by courtesy." Good manners insure success."

Never anticipate wealth from any other source than labor; especially never place dependence upon becoming the possessor of an inheritance. "He who waits for dead men's shoes, may have to go a long time bare foot." "He who runs after a shadow, has a wearisome race."

Above all things never despair. "God is where he was." "Heaven helps those who help themselves."

Follow implicitly these precepts, and nothing can hinder you from accumulating.—Western paper.

MECHANIC ARTS.

Strength of Cords.—The best mode of estimating the strength of a cord of hemp, is to multiply by 200 the square of its number of inches in girth, and the product will express in pounds the practical strain it may safely be loaded with. For cables, multiply by 120 instead of 200. The ultimate strain is probably double this. For the utmost strength that a cord will bear before it breaks, a good estimate will be formed by taking one-fifth of the square of the girth of

the cord to express the tons it will carry. This is about double the rule for practice just given above, and is, even for an ulterior measure, too great for tarred cordage, which is always weaker than white. In cables, the strength when twisted, is to the strength when the fibres are parallel, as about three to four.—New York Mechanic.

IOWA.

Constitution adopted-the State Convention held at Iowa for the purpose of forming a Constitution adjourned on the 19th ult, and presented to the people what is said to be an excellent Constitution. It availed itself of the various desirable provisions of the several State Constitutions, as well as of the United States. The boundary of the State runs up the Des Moines river, and along the Missouri boundary, and up the Missouri river to the middle of the main channel of the Big Sioux river. The State, according to the boundaries of the new Constitution, will contain about 50,000 square miles, or thirty-two millions of acres of the best land in the world;which, divided into farms of 100 scres each, would make three hundred and twenty-two thousand farms. Suppose each farm to contain six persons, lowa would have a population of almost two millions.

The new Constitution provides that any free white person may vote who has been a resident of the State one year, and of the county twenty days. Sessions of the Legislature to be held biennially; the members of the house to be elected for two years, and those of the Senate four. The office of Lieutenant Governor is to be dispensed with; the Governor to be chosen for four years; his salary not to exceed \$1000 for the first ten years; that of the Judges the same. The members of the Legislature are to be paid \$2 per day for fifty days; after that \$1. District Judges to be elected by the people. Banking is prohibited, and all corporations to be provided for by general laws, the stockholders to be subject to such liabilities as shall be provided for by law .- Western paper.

To Candy Fruit.—Take it from the syrup, drain it dry, and roll it in finely-powdered sugar, and set it on a sieve in an oven, to dry.



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FAMILY NEWSPAPER.

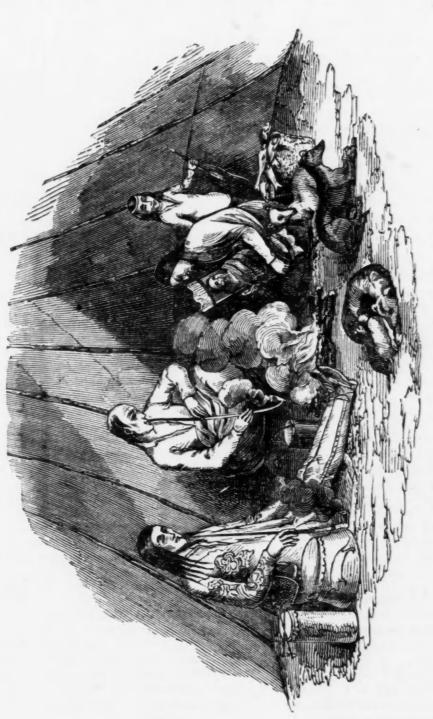
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NTERIOR OF AN OJIBWAY WIGWAM.

Having given, in our last number, some account of the forms and materials of Indian habitations, we now present our readers with a view of the interior of an Ojibwa lodge. It was drawn by one of our missionaries (the Rev. Mr. Sproat,) who is intimately acquainted with the habits of

that nation, and sketched from real life. The following description is also in his own words.

"On lifting the blanket that guards the entrance to an Ojibwa lodge, you see, first of all, the dogs lying about,

here and there, within the door and around the fire.

have a peculiarly mean, sneaking appearance, half wolf, half dog, with pointed noses, small ears, and so lean and famished withal that you may count every bone under their scarred and tawny skins.

"On the left sits an Indian, the father of the family, on a mat, smoking his pipe, and looking as demure and composed as a philosopher of yore; his pipe resting on the ground, his teeth set firm against the stem, and his head resting on the same. He partially reclines on a mush kemott or bag, containing all his wardrobe. His whole appearance is that of the most perfect apathy and quiescence. As for dress, if it be summer, he generally has none, except a cloth around his loins. If it be winter, he may have a close dress, made of furniture calico, with one great, gaudy pattern covering the whole; but it will probably be so besmeared with dirt and fish grease, that neither pattern nor flower can be discerned. He has leggins also, generally of broadcloth, which are sometimes highly embroidered with bead work; sometimes one is blue, and the other red, just as his fancy or taste may suggest. His moccasins are of deer skin; and if he is fond of dress, they too are covered with beads and flowers of stained porcupine quills; but oftener they are merely a simple covering for the feet, under which, in winter, a piece of blanket, as a substitute for stockings, is

"Beside him stands a muchuk, or box of bark, on which his totem, or family name is inscribed. These boxes are used by the Indians for keeping their sugar, which they make from the sap of the maple. Near it stands the medicine drum, used by the Ojibwas in their religious feasts and dances. Great use is made of these in every Indian lodge, and often in passing through their villages by night, the whole

camp is resounding with noise.

"Behind the dogs, on the right, sits his wife, holding in her arms an Indian cradle, on which their youngest-born is bound. You seem at first to be looking on a little mummy, begirt to the chin with bandages, and stretched on a board, instead of a case; but presently the eyes and head move, and you assure yourself that there is a living infant before you. Does it cry or complain? You have only to place it upright on its feet and rock it to and fro, or suspend it on a swing in the middle of the lodge, and hear its Indian mother sing through her teeth, 'Buzz—buzz—buzz,' for its lullaby.

"Near her stands her little son. His hair is daubed with fish grease, and hangs in matted locks upon his shoulders. Neither hands nor face have been washed for a month; and he looks as if encased in dirt. He holds a bow and arrow in his hand. These are the most common playthings of the Ojibwa children.

"Farther in the distance, sits an aged man, perhaps the grandfather of the family, wrapped in a blanket. His apathy is that of a dormouse. He smokes and sleeps,

and eats and starves, by turns.

"A kettle of fish, a few tin cups and pans, a number of small mush kemotts or bags, containing the provisions, wearing apparel, medicines, &c., complete the arrangements of the interior."

The following description of the domestic habits of the Massachusetts Indians, as they were in 1636, we copy from "New England's Prospect, by William Wood.

In winter-time they have all manner of fowls of the water and of the land, and beasts of the land and water, pond-fish, with Catharrs and other roots, Indian beans and clams. In the summer they have all manner of sea-fish, with all sorts of berries. For the ordering of their victuals, they boil or roast them, having large kettles which they traded for with the French long since, and do still buy of the English as their need requires, before they had substantial earthen pots of their own making. Their spits are no other than cloven sticks sharpened at one end to thrust into the ground; into these cloven sticks they thrust the fish or flesh they would have roasted, behemming a round fire with a dozen of spits at a time, turning them as they see occasion.

Some of their scullery having dressed these homely cates, presents it to his guests, dishing it up in a rude manner, placing it on the verdant carpet of the earth which nature spreads them, without either trenchers, napkins, or knives, upon which their hunger-sauced stomachs impatient of delays, fall aboard without scrupling at unwashed hands, without bread, salt, or beer: lolling on the Turkish fashion, not ceasing till their full bellies leave nothing but empty platters; they seldom or never make bread of their Indian corn, but seeth it whole like beans, eating three or four corns with a mouthful of fish or flesh, some. times eating meat first, and corns after filling chinks with their broth. In sum. mer, when their corn is spent, squouter.

squashes is their best bread, a fruit like a young Pumpkin. It being their fashion to eat all at some times, and sometimes nothing at all in two or three days, wise Providence being a stranger to their wilder ways: they be right Infidels, neither caring for the morrow, or providing for their own families; but as all are fellows at foot-ball, so they all meet friends at the kettle, saving their wives, that dance a Spaniel-like attendance at their backs for their bony fragments. If their imperious occasions cause them to travel, the best of their victuals for their journey is Nocake, (as they call it) which is nothing but Indian corn parched in the hot ashes; the ashes being sifted from it, it is afterward beaten to powder, and put into a long leathern bag, trussed at their back like a knapsack, out of which they take three spoonfulls a day, dividing it into three meals. If it be in winter, and snow be on the ground, they can eat when they please stopping snow after their dusty victuals, which otherwise would feed them little better than a Tiburne halter. In summer they must stay till they meet with a spring or brook, where they may have water to prevent the imminent danger of choaking, with this strange viaticum they will travel four or five days together, with loads fitter for elephants than men. But though they can fare so hardly abroad, at home their chaps must walk night and day as long as they have it. They keep no set meals, their store being spent, they champ on the bit, till they meet with fresh supplies, either from their own endeavors, or their wives industry, who trudge to the Clambanks when all other means fail. Though they be sometimes scanted, yet are they as free as emperors, both to their countrymen and English; be he stranger, or near acquaintance; counting it a great discourtesy, not to eat of their high-conceited delicates, and sup of their un-oat-mealed broth, made thick with fishes, fowls, and beasts boiled all together; some remaining raw, the rest converted by over-much seething to a loathed mash, not half so good as Irish Boniclapper.

Indians at the Falls of the Columbia.—About seven hundred miles from Fort George, says Coxe, in 1812, and ninety from Spokan House, there is an immense fall in the Columbia, between sixty and seventy feet perpendicular at low water, and about forty-five in the spring and early part of the summer, when the melting of the snow contributes to swell

the mighty torrent. The basin at the foot of the cascade resembles a boiling cauldron, in consequence of which the fall is called "La Chaudiere." A small tribe, called "Les Chaudieres," reside fall is called "La Chaudiere." at this place: their village is situated on the north side, just below the fall, where they remain the greater part of the year. They take little beaver; but their lands are well stocked with game and fish; there is also abundance of wild fruit, such as choke-cherries, currants, small strawberries, with black and blue berries. They take vast quantites of salmon, which they dry and preserve for use during the winter and spring months. Cleanliness cannot be ranked among their virtues. Their habitations are filthy in the extreme, and the surrounding atmosphere is impregnated with the most noxious effluvia, produced by the piscatory offals which lie scattered about their dwellings. I visited their village in September in company with my friend M'Donald, his wife, some of her relations, and two of our own men. They received us in a friendly manner, and treated us to abundance of roast and boiled salmon.

We visited a small tribe, consisting of not more than fifteen families, who occupied a few hunting lodges about midway between Spokan House and the Chaudière falls. The chief of this tribe is an extraordinary being.

His dwelling was covered with large deer-skins, and was completely water-proof. The interior was remarkably clean, and spread over with mats. In one corner he had a stock of dried provisions, stored in leather and mat bags, which in periods of scarcity he shared liberally among the tribe; in fact he wanted nothing that could add to his happiness or comfort, and possessed a degree of calm contentment uncommon among savages, and which would put to the blush much of the philosophical wisdom of civilized man.

The habitations of a people necessarily have much influence upon their social state; while their social state in some degree affects their habits in constructing houses. Most of the dwellings of the Indians are slight, small, inconvenient, uncomfortable and frequently changed, so that many obstacles to improvement must lie in the way, until a better style is introduced.



ANCIENT EGYPTIAN POTTERS.

This outline copy of one of the numerous groups found painted on the walls of some of the ancient Egyptian edifices, gives some ideas of one branch of manufactures carried on by that remarkable people. We have before given a similar representation of their mode of brickmaking. One man is here seen in the act of moulding a vessel with his hand, apparently with the use of a wheel; another is handing to the third vessels which have been hardened and sun-dried, ready for the furnace.

We add, from notes of one of Mr. Gliddon's lectures, the following interesting remarks on the industry and skill of the Egyptians.

Geologically considered, Egypt is a very peculiar country, the quarries of different kinds of stone, lying at great distances from each other in distinctly marked localities. If you see a piece of basalt on the beach of the Mediterranean, you know that there is no basaltic quarry nearer than between the 1st and 2d cataract; and, when you find a block of granite at Memphis, you know that no granite exists but at the first cataract-nearer than the peninsula of Mount Sinai. Early civilization and extended dominion are indicated in these facts, and when we reflect upon them, we almost think we witness the work of transportation going on; that we see the builders, and the buildings themselves in process of erec-

The blocks of Arabian limestone used in the interior of the pyramids were brought from the ancient quarries of Toorah, on the opposite side of the Nile, distant about 15 or 20 miles from each pyramid. These very quarries are vast halls as it were excavated in the living Rock, wherein entire armies might encamp, are adorned with now mutilated tablets recording the age of their respective opening by different Pharaohs, not only show the very beds whence the stupendous blocks of some of the pyramids were taken; but are in themselves, works as wondrous and sublime as the Memphis Pyramid! nay, at the very foot of these quarries, lie the countless tombs and Sarcophagi of unnumbered generations of ancient quarrymen! These quarries are of intense archæological interest, because the tablets in them record that stone was cut in them for Memphis, on such a day, such month, such a year of the reign of such a king; and these kings begin from the remote times before the 16th dynasty, and, at different intervals come down through the Pharaonic period with many of the others, till we reach the Ptolemaic epoch-and end with Latin inscriptions similar to others in Egypt, attesting that "these quarries were worked" in the propitious era of our Lords and Emperors Severus and Antoninus, thus enabling us to descend almost step by step from the remote antiquity of 2200 years B. C., down to 200 years after the Christian era. The hand of modern barbarism, prompted by the destructiveness of Mohammed Ali has since 1830 done more to deface these tablets-to blow up many of these halls in sheer wantonness than has been effected by time in 4000 years!

Every atom of the hundred thousand tons of granite used in the pyramids was cut at Syene, the 1st cataract distant 640 miles. The blocks, some of which are 40 feet long, had to be cut out of their beds with wooden wedges and copper chisels; then polished with emery till they were as smooth as a looking glass, and then carried by land half a mile to the river—placed on rafts and floated down 640 miles to

Memphis-brought by canals to the foot of the Lybian chain-conveyed by land over gigantic causeways from one mile to three in length to the pyramids for which they were intended, and then elevated by machinery and placed in their present position, with a skill, and a masonic precision that has confounded the most scientific European engineer with amazement! very basalt sarcophagi that once held the mummy of the Pharaohs, in the inmost recesses of these pyramidal mausolea, 8 1-2 feet long by 3 1-2 broad and 3 deep were all brought from Lower Nubia, from the basaltic quarries of the 2nd cataract, not nearer than 750 miles up the river.

Looking into the interior of the pyramids, there is still much to stagger beliefto excite our admiration. In the pyramid of five steps, the upper beams that support the roof of the chamber are of oak, larch, and cedar, not one of which trees grows in Egypt, and establish the fact of the timber trade with Illyria, Asia Minor, and Mount Lebanon in ages long before Abraham! In the fragments of a mummy the cloth is found to be saturated with the "Pissasphaltum"-Jews' pitch or bitumen Judiacum, compounded of vegetable pitch from the Archipelago, and of asphaltum of the Dead Sea in Palestine; we find Gum Arabic that does not grow nearer than 1200 miles from the pyramid, attesting commerce with Upper Nubia. The gold leaf came from the mines of Suakim on the Red Sea, or from remote Fazoglu. The liquor which cleansed out the body of the mummy was Cedria the fluid rosin of the pinus cedrusthat grows not nearer than Syria. The spices send us to the Indian Ocean-the aloes to Succotra—the cinnamon to Ceylon, the ancient Taprehane-and then the arts and sciences brought to bear upon the pyramids that must have arrived at perfection long before that day are not only themes for endless reflections, but oblige us to confess that in knowledge we are yet children!

Earthquake at Talcahuano and Concepcion about ten years ago.—"While the ship was beating up to the anchorage, I landed on the island of Quiriquina. The mayor-domo of the estate quickly rode down to tell me the terrible news of the great earthquake of the 20th,—'That not a house in Concepcion or Talcahuano (the port) was standing; that seventy villages were destroyed; and that a great wave had almost washed away the ruins of Talcahuano.' Of this latter statement I soon saw abundant proofs—the whole coast being strewed over with timber and furniture as if a thousand ships had been

wrecked. Besides chairs, tables, book-shelves, &c., in great numbers, there were several roofs of cottages, which had been transported almost whole. The storehouses at Talcahuano had been burst open, and great bags of cotton, yerba, and other valuable merchandise were scattered on the shore. During my walk round the island, I observed that numerous fragments of rock, which, from the marine productions adhering to them, must recently have been lying in deep water, had been cast up on the high beach; one of these was six feet long, three broad, and two thick.

"The island itself as plainly showed the overwhelming power of the earthquake, as the beach did that of the consequent great wave. The ground in many parts was fissured in north and south lines, perhaps caused by the yielding of the parallel and steep sides of this narrow island.—Some of the fissures near the cliffs were a yard wide. Many enormous masses had already fallen on the beach; and the inhabitants thought that when the rains commenced far greater slips would happen. The effect of the vibration on the hard primary slate, which composes the foundation of the island, was still more curious; the superficial parts of some narrow ridges were as completely shivered as if they had been blasted by gunpowder. This effect, which was rendered conspicuous by the fresh fractures and displaced soil, must be confined to near the surface, for otherwise there would not exist a block of solid rock throughout Chile; nor is this improbable, as it is known that the surface of a vibrating body is effected differently from the central part. It is, perhaps, owing to this same reason, that earthquakes do not cause quite such terrific havoc within deep mines as would be expected. I believe this convulsion has been more effectual in lessening the size of the island of Quiriquina, than the ordinary wearand-tear of the sea and weather during the course of a whole century.

"The next day I landed at Talcahuano, and afterwards rode to Concepcion. Both towns presented the most awful yet interesting speciacle I ever beheld. To a person who had formerly known them, it possibly might have still been more impressive; for the ruins were so mingled together, and the whole scene possessed so little the air of a habitable place, that it was scarcely possible to imagine its former condition. The earthquake commenced at half past eleven o'clock in the forenoon. If it had happened in the middle of the night, the greater number of the inhabitants (which in this one province amount to many thousands) must have perished, instead of less than a hundred; as it was, the invariable practice of running out of doors at the first trembling of the ground, alone saved them. In Concepcion, each house, or row of houses, stood by itself, a heap or line of ruins; but in Talcahuano, owing to the great wave, little more than one layer of bricks, tiles, and timber, with

here and there part of a wall, left standing, could be distinguished. From this circumstance, Concepcion, although not so completely desolated, was a more terrible, and, if I may so call it, picturesque sight. The first shock was very sudden. The majordomo at Quiriquina told me, that the first notice he received of it, was finding both the horse he rode and himself rolling together on the ground. Rising up, he was again thrown down. He also told me that some cows which were standing on the steep side of the island were rolled into the sea. The great wave caused the destruction of many cattle; on one low island, near the head of the bay, seventy animals were washed off and drowned. It is generally thought that this has been the worst earthquake ever recorded in Chile; but as the very severe ones occur only after long intervals, this cannot easily be known; nor indeed would a much worse shock have made any great difference, for the ruin was Innumerable small trembnow complete. lings followed the great earthquake, and within the first twelve days no less than three hundred were counted.

"The most remarkable effect of this great earthquake was the permanent upraising of the land no less than three feet. The island of Juan Fernandez—memorable as the solitary residence for years of Alexander Selkirk, a shipwrecked sailor—was so violently affected, though distant from Concepcion 360 miles to the northeast, that the trees smote against each other, and there burst forth a volcano under water close to the shore. In the Cordilleras, also, two volcanoes opened at the same moment into violent action, which probably relieved the earth of the upheaving torces that disturbed her."—Darwin's Journal.

"Death of the old brown Dog."—Under this head all the Cincinnati papers lately had editorial notices of the death of a remarkable dog of that city, well known to the "oldest inhabitant." The Herald says that for twenty years past he has resided there and has generally signalized himself by attending with great sobriety, all grand processions. He was buried with due honors in the yard belonging to the Gazette buildings, and it is in contemplation, we learn, to rear a monument to his memory. Mr. Cist in his Advertiser, has the following notice of him:

"One of the greatest curiosities of Cincinnati is Lear, the old brown dog, who may be seen at almost any hour of the day in the purlieus of our city post office, and as he has not and probably never had any owner, may be numbered as one of the familiars of that establishment.

Amidst the various succession of postmasters—during the whole incumbencies of Burke, Taylor and Crawford—amidst all the presidential changes of Monroe, Adams, Jackson, Van Buren, Harrison, Tyler and Polk, he still holds his post. How far back

he made his first appearance the oldest inhabitant cannot tell, but I can find several who have known and recollect him for twenty years and more. During this period he was never known to follow any individual, even when tempted by caresses or the offer of food: in fact he has never been known to receive food from any person, invariably refusing it when offered at his post. He has been followed by persons curious to ascertain where he feeds, but by some singular process contrives to defeat their purpose, by disappearing the moment their eye is turned to any other object if but for one moment.

In each successive removal of the post office, he has always gone along, as if considering himself a part of the establishment. In the last case following the first dray load of moveables, and remaining at the new

office ever since.

He attends all firemen's parades, military processions, political mass meetings, and every funeral of note in the city. At the funeral pageant, last year, in memory of General Jackson, he crawled under the hearse, and kept under it the whole route—nearly two miles—although considerably exhausted by the effort, the day being uncom-

monly sultry and close.

During the whole course of his long life, he has never been known to be meddled with by other dogs, or to have taken any notice of his species, nor to have received any ill usage from any individual, man or boy, by whom he is extensively known and regarded as a privileged character. Hundreds having business at the post office, who would unhesitatingly kick any other dog out of the road, step aside carefully, however great the throng, rather than tread on or insult the noble brute. He may be seen occasint the notice state.

Trust Company or Franklin Bank, or the Bank Exchange, but is never guilty of lying at the door of a private residence. friend, Rabbi Jonas, who believes in the transmigration of souls, suggests that the spirit which animates Lear, was once that of a public officer and an individual of the most aristocratic bearing. Apart from the usual instincts and remarkable sagacity of dogs, there is much that is mysteriously unaccountable in the history and habits of Lear, a part only of which are here stated."

To Remove Ink Spots.—Wet the place immediately with sorrel or lemon juice, and rub on it hard white soap. Ink or iron mould may be removed by holding over a vessel of boiling water, and squeezing on the juice of sorrel, then rubbing with dry salt.

Industry.—If you have great talents, industry will improve them; if you have but moderate abilities, industry will supply the deficiency. Nothing is to be obtained without it.

THE COPPER REGION OF LAKE SUPERIOR.

(From Letters in the Zanesville (Ohio) Courier.)

PORTER'S ISLAND, June 22d, 1846. We arrived here about ten days ago, and since that time, have been actively employed in examining locations and visiting the principal ravines. From Sault Ste Marie to this place, the distance is about 180 miles in a direct line. The true entrance to Lake Superior is between Point Iroquois on the south and Gros Cap on the north. These are bold headlands, situated about 9 miles from the Sault, after passing which the lake begins to expand, but it is not until you get beyond White Fish Point, distance 45 miles, that you lose sight of land. After passing that point, you launch out into a boundless waste of waters, and the first land you discern, are the lofty ridges of trap and conglomerate, that form the head of Keweenaw Formerly, before the introduc-Point. tion of schooners upon the lake, this point was gained by coasting, in canoes and batteaux, and the distance traversed was about two hundred and seventyfive miles. By pursuing the former course, you lose sight of much of the most beautiful scenery of the lake and perhaps of the world, among which may be reckoned the Pictured Rocks, or Les Portailles, as they are called by the French voyageurs, a name quite as appropriate and descriptive. Point Iroquois takes its name from the massacre of a large portion of that tribe of Indians, as far back as 1610. The Indians call it Nadowa-ga-quin-ing—the place of Indian bones-for long after that event they lay bleaching on the battle field. Henry, one of the earliest travellers in this region, gives the following account of the massacre. The Iroquois having made war upon the Chippeways with the design of dispossessing them of their territory, encamped a thousand strong, upon this point, when thinking themselves secure from their numbers, they indulged in feasting on the bodies of their prisoners. The sight, however, of the sufferings and immolation of their kindred and friends, so wrought upon the Chippeways who beheld them from the opposite shore, that they determined to avenge their deaths or perish in the attempt. With the largest number of warriors they could collect, but which amounted to only three hundred, they crossed the channel. The night was dark and rainy, which favored their project. The Iroquois, unconscious of danger, were in the midst of their revels, and their warsong was occasionally heard by their concealed foe. When, at length, their camp was quiet and the occupants were supposed to be buried in sleep, the Chippeways fell upon them, and so fierce was the onset, that but few escaped to tell the tale of their disaster. The Chippeways lost but a single man, and he died of a wound received from an old squaw who stabbed him with an awl.

From White Fish Point to some distance above Grand Sable the shore is lined with steep sandy cliffs, rising to the height of 200 or 300 feet, and occasionally sustaining a sickly growth of evergreens, but for the most part the shore presents a bleak and desolate appearance. Ten or twelve miles below Grand Island commences a series of Sandstone bluffs, which extend to Granite Point, occasionally attaining a height of 300 or 400 feet above the lake. In this range occur the famous Pictured Rocks which rise perpendicularly out of the lake to the height of 400 feet, and present a bold mural escarpment, so that for a distance of ten miles there is no landing. It is only, then, during the calmest weather, that this great natural curiosity can be inspected. This immense wall does not extend in a straight line, but is composed of a succession of curves, so uniform in their appearance as to resemble huge battlements compared with which all human structures dwindle into insignificance. The ruins from above, in the course of ages, have grooved out immense furrows, whilst the waves from below have excavated arched caverns into their sides far beyond the reach of human ken. The entrance to one of these is about 30 feet wide and 60 high, and after passing the gateway, it expands into an immense rotunda. Every surge from the lake carries the process of excavation still further into the rock, and as it rushes booming into the caverns, produces musical echoes which are heard far around. Thus by the action of the elements have been constructed castles and domes, arches and minarets, far surpassing in grandeur and magnificence the proudest monuments of human art.

Grand Island is a continuation of this formation, but, in the strife by which it was detached from the main land, the

waves excavated portions of the rock and left others standing, so that at a distance the voyageur imagines that he is coming to some friendly city with its domes and turrets, instead of a bleak and rock-bound shore. There is a tradition connected with this island, which is thus related by Schoolcraft. A party of thirteen Chippeways left this place to go to war with the Sioux. They took a runner to witness their conduct in the war, and bear the tidings to their kindred. This they did because they had been reproached with cowardice. They soon fell in with an advanced party of the enemy, most of whom they slew. The balance then attacked them, but they scorned to fly, and fought on resolutely until overpowed by numbers they all fell. The runner escaped unharmed, and recounted to his tribe their deeds of valor.

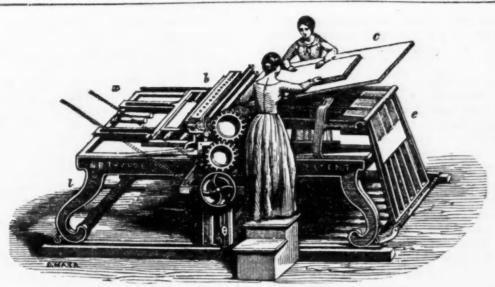
At Granite Point, the granite breaks through the sandstone, forming hills from 200 to 300 feet high, and extends thence in a southwesterly direction, through the northern peninsula of Michigan. forms the back bone, or what Geologists term the "anteclinal axis" of the mineral region, and is flanked by sandstone extending on Keweenaw Point, as far as Bay de Gris. There the conglomerate, a rock made up of large rounded pebbles of sandstones and porphyry cemented with a red, iron sand, makes its appearance resting on the trap. Between that Point and the little Montreal river, which forms the boundary between Michigan and Wisconsin, the country is composed of alternate ridges of trap and conglomerate, running in a N. E. and S. W. direction. These ridges are traversed occasionally with veins running generally at right angles with the prolongation of the ridges, the matrix of which consists of calc spar, prehnite, chlorite or amigdaloidal trap, which, in some cases, are metalliferous. The copper occurs most frequently native, but the black and grey sulphuret, the red and black oxide, and the green carbonate or silicate, are not unusual. Silver is also associated with most of these ores, frequently in so small quantities as to be too unproductive, but at Copper Falls, Eagle River, and the Pittsburgh or Cliff mines, it is found in such abundance as to be far more valuable than the Copper.

Such is a brief outline of the Geology.

Professor Liebig .- From the German papers recently received, we have gathered some interesting particulars respecting the life and labors of this distinguished chemist. He has lately been elevated to the rank of baron by his sovereign, the Grand Duke of Hesse Darmstadt. On his appearance at the capital, to present himself to the Duke, and render his acknowledgements for the honor conferred upon him, he was invited to the ducal table, and received by the court with the greatest distinction. The Grand Duke especially took occasion to thank him for his refusal of the many attractive invitations which he has received from various quarters, and for his fixed determination to remain in the land of his birth, and in his present sphere of usefulness and honor in the University of Giessen. A correspondent of the Augsburg Gazette, writing from Darmstadt, after mentioning these facts concerning Liebig's reception at court, presents some details concerning his ordinary professional labors. The central point of all these labors is his great chemical laboratory which is described as "a building, some years ago greatly en-larged, and amply furnished, which stretches along the southern side of the town of Gies-sen." Liebig has three assistants constantly at hand, who wait upon his every movement.

He delivers lectures every day from 11 to 12, accompanied by practical experiments. In the remaining part of the day, he superintends the labors of numerous pupils in the various departments of the laboratory, or withdraws to his study, adjoining which is his private laboratory, where he is either oc-cupied himself or his private assisiant under his direction. Notwithstanding the extent of his public establishment, it was found insufficient for the accommodation of his numerous pupils. On this account Liebeg erected, not long ago, at his own expense, a large building as a sub-laboratory, and in which beginners receive their preliminary educa-tion. To these details of Liebig's public life, may be added another item of a private nature.—The civil authorities of Giessen have lately presented him with an estate, on the outskirts of the town, having on it a country house surrounded by a park, and containing an arena of fifteen acres of land, mostly of sandy soil. The land is to be put in order for cultivation, and to be employed by Professor Liebig chiefly in experiments on agricultural chemistry.—Bos. Paper.

Valuable Composition.—Eight parts of Zinc, one of copper and one of iron, being combined by melting together, forms alloy as hard as brass; is very tenacious, and when exposed to the atmosphere and moisture will not oxidize and become tarnished. It is said to flow freely in casting, and will not adhere even to a metallic mould.



A STEAM PRINTING-PRESS.

We have deferred, much longer than we intended, the description we promised our readers in the first volume, of an improved printing press. We gave descriptions of the old Ramage press (page 327, Vol. I.), and the first improvements made, with engravings, on pages 326 and 343, Vol. I. We now proceed, briefly, to speak of the plan of the Cylinder Presses, which, under various forms, and of different sizes, now perform a great part of the most rapid printing done in this country, as well as in England and France, so far as our information extends.

But let the reader consider, for a moment, the inconveniences attending the operation of printing on the old presses, which had been in use, we have substantial reasons for believing, for three cen-1st. The form of turies and more. types must be beaten hard, with two large cotton balls, covered with leather, and bespread with glutinous ink, which sufficiently employed one man. 2d. The sheet of paper must be placed on the tympan, and laid down upon the bed of type, after being confined by the frisket (see Vol. I. page 328). 3d. The form must be moved, with the bed, its whole length, by the other man, before each impression, in order to place it under a square board, called the platten, which was to be pressed down upon it. This movement was effected by a windlas, turned by the left hand. 4th. The lever of the screw was pulled by his right hand, to give the impression. 5th. The bed must be drawn back by a reverse movement of the windlas. 6th. The tympan must be raised, the frisket thrown up, and the sheet, now printed on one side, taken off and laid upon a heap, to make way for the next; which must go through the All this time the pressman process. first mentioned was beating his balls together, to keep the ink spread equally upon their surfaces, occasionally putting on a little more. We have a copy of an old picture of an ancient Dutch printingoffice, in a Paris penny paper, which represents this same operation as carried on early in the 16th century. Indeed, it is enough to impress one rather seriously of the amount of labor performed by printers during the first three centuries and more which succeeded the invention on the art in Europe, to reflect upon the innumerable books which were produced; many of them of enormous size. Truly, we men of the 19th century owe much to some of our predecessors, who had a desperate contest to carry on against ignorance and superstition, but were happily borne through. With all this severe personal labor, the best presses and the best workmen rarely pretended to work off more than two thousand sheets in a day; or half that number printed on both sides.

We may now turn to the press at the head of this article. The bed of type b was placed, as before, on horizontal supporters, but, so that it might be moved with the utmost ease, running over small friction-wheels. Over it was the inkingroller, made of a compound of glue and molasses, and nearly of the consistency of India-rubber, which was moved by the passage of the bed, and had the ink supplied and distributed by several other rollers, moved by cog-wheels. sheets of paper were pushed forward, one by one, by a boy or girl, from a heap on the supply board, c, and seized by nippers, tapes and cords, which moved it smooth and with unvarying certainty to the cylinder, and round it, just in time to meet the bed of type as it came from under the inking-roller, and was passing under the cylinder. In an instant the impression is given, and the sheet is moved away by the tapes and cords, which resume their motion, and carry it under the supply board, where another boy waits to receive it.

The heavy bed of type now reaches the end of its course in this direction, and is to return. It strikes a spiral spring and rebounds, while the cog-wheel which brought it in thus far is instantly reversed by the turning of an universal joint, and back it flies to the other extremity of the machine. One of the most surprising parts of the complex operation was the lifting of the cylinder, which was raised by small springs just in time to let the bed pass under without touching. All these movements were given to the different parts by a single heavy fly-wheel, at first turned by one or two men, afterwards by a mule, and now by steam.

The original inventor of a press of this kind was an ingenious Scotchman,

of a most estimable and religious character, named Napier, who brought it into use in London about the year 1824. The first ever in this country was brought out by Mr. John M. Walker, one of the proprietors of the New York Daily Advertiser; who went to England to procure it for the use of that paper and the New York American. After it had printed those papers for some time, Mr. Hoe of this city began to construct presses on the same plan, and after making various improvements, he and other ingenious American mechanics have supplied the country with multitudes of excellent construction and most rapid execution. Cylinder-presses, double as well as single, are now very numerous, and may be heard at all hours of the night as well as of the day rumbling and rattling, in basement stories, in cellars, and even under the sidewalks-especially in neighborhoods where daily newspapers are printed—as in the upper parts of Nassau street, Ann street, &c. When there is great news, and the people and newsboys crowd around the doors for the new edition, the steam is often pressed, and the movement hurried so fast that, instead of 250, not less than 4,000! sheets are printed in an hour on one doublecylinder press.

The Indian Treaty.—The Austin (Texas) Democrat, gives the particulars of the treaty concluded between Gov. Butler, the U. S. Commissioner, and various tribes of Indians, at the Council Springs, upon the Upper Brazos, on May 16th. Eleven tribes were fully represented, and all the chiefs signed the treaty, and declared their determination to assist in punishing all who might violate it. One of the objects of the delegation of Indians who have accompanied Gov. Butler to Washington City, is to fix upon a line of boundary, within which to restrict the occupation of the Indians. The points settled by the treaty are thus enumerated:

The Indians acknowledge themselves under the protection of the United States, and recognize no other authority, pledging themselves to perpetuate amity and friendship

with the people of the U. States, and all other friendly Indians. They agree not to form alliances with the enemies of the country, and to give notice of any contemplated invasion or impending danger. Each tribe is to give notice of any violation of the treaty on the part of any other. They are to give prisoners, and aid the authorities of the United States in obtaining them. They pledge themselves to desist from all murder and depredation, and surrender all offenders, to be tried by the laws of the United States. The United States have the right to establish agencies and trading houses among them, and to establish military posts, &c. They concede to the United States the right of control over all trade and intercourse, and will, in no instance, seek personal redress for injuries either to persons or property, but will in such cases apply to the U. States agent. They concede the right to introduce among them ministers of the Gospel and school teachers. They agree to prohibit the introduction of spirituous liquors among them, and to give notice of the violation of this provision. The United Sates, in consideration of these stipulations on the part of several Indian tribes represented at the treaty, agree to make peace for them with all their enemies, to give them presents every fall, &c., E-se-qua-t-as as usual in similar treaties. and Mescalaros, numbering together about 5000 souls, who are branches of the Lipans and allies of the Camanches, and came recently from the Mexican prairies, are included among the tribes represented at the treaty. The Camanches are anxious to conciliate them.

An Amazonian Forest .- "The road leads nearly the whole way through a deep unbroken forest, of a density and a magnitude of which I had, before penetrating it, but a faint conception. Notwithstanding this is one of the most public roads leading to or from the city, yet it is only for a short distance passable for carriages: indeed, the branches of trees are not unfrequently in the way of the rider on horseback. A negro is sent through the path periodically with a sabre, to clip the increasing foliage and branches before they become too formidable: thus the road is kept open and pleasant. Notwithstanding the heat of the sun in these regions at noonday, and the danger of too much exposure to its rays, yet an agreeable coolness always pervades those retreats of an Amazonian forest, whose lofty and um-brageous canopy is almost impenetrable. The brilliancy of the sun's glare is mellowed by innumerable reflections upon the polished surface of the leaves. Many of the trees are remarkably straight, and very tall.-Some of them are decked from top to bottom with splendid flowers and parasites, while the trunks and boughs of nearly all are interlaced with innumerable runners and creeping vines.

"These plants form a singular feature of the more fertile regions of Brazil. But it is

on the borders of the Amazon that they appear in their greatest strength and luxuriance. They twist around the trees, climbing up to their tops, then grow down to the ground, and taking root, spring up again, and cross from bough to bough and from tree to tree, wherever the wind carries their limber shoots, till the whole woods are hung with their garlanding. This vegetable cord is sometimes so closely interwoven that it has the appearance of net-work, which neither birds nor beasts can easily pass through. Some of the stems are as thick, as a man's arm. They are round or square, and sometimes triangular, and even pentangular. They grow in knots and screws, and indeed in every possible contortion to which they may be bent. To break them is impossible.-Sometimes they kill the tree which supports them, and occasionally remain standing erect, like a twisted column, after the trunk which they have strangled has mouldered within their involutions. Monkeys delight to ply their gambols upon this wild rigging; but they are now scarce in the neighborhood of Para. Occasionally their chatter is heard at a distance, mingled with the shrill cry of birds; but generally a deep stillness prevails, adding grandeur to the native majesty of these forests."-Kidder's Brazil.

The Greatest Iron Gun ever Cast Yet .-Yesterday afternoon another stupendous piece of ordnance was cast at Algier's Foundry, South Boston, which, when finished, will exceed Capt. Stockton's celebrated "Peace-maker," by 5000 pounds in weight. The maker," by 5000 pounds in weight. The arrangements for the operation were commenced in the morning, by filling the furnaces with metal, and firing up. The quantity of metal used was about 46,000 pounds, and the amount of coal consumed in reducing it to the requisite state of fusion was eight chaldrons. At 6 o'clock, P. M., repeated experiments having been made with it in small quantities, the metal was pronounced to be in a fit condition for use, and the grand operation of casting was commenced. The two furnaces were tapped, and the boiling and blazing liquid gushed forth, rushing and leaping through the iron canals, which emptied into the sides of the mould, sunk twelve feet into the ground. The flaming streams continued to run for fifteen minutes down through the iron flask, or shell of the mould, the metal in the meantime bubbling and revolving as it rose in the inner shaft of sand, which in fact formed the actual mould for the cannon. The metal having reached the level of the mould, a supplementary or cap mould was put, and filled with some tons of metal poured it from a crane ladle.

The object of this addition is to give, by means of dead weight above, steadiness to the process of chrystalization in that portion of the mass out of which the cannon is to be turned. Ten days will elapse before the metal will become sufficiently cool to admit

of the removal of the flask, by digging away the compact ground in which it stands embedded; and then, in the space of five weeks, the gun can be finished and got ready for mounting on Fort George, in our harbor, for which it is designed.

The casting was done under the personal supervision of Mr. Alger and Col. Bomford, the inventor of this species of ordnance, to the first specimen of which Thos. Jefferson, in 1809, gave the name of the "Columbiad."

The weight of the gun, when finished, will be 25,000 pounds. Length. 10 feet; diameter at the base ring, 39 inches; length of chamber, 13 inches; diameter of chamber, 9 inches; length of bore, 9 feet 1 in.; diameter of bore, 12 inch. Weight of round shot which it will carry, 230 lbs.; weight of shell, 180 lbs. Range of shot or shell, 3½ miles—being ¼ of a mile greater than the recorded performance of the largest and latest invented mortar in England, and half a mile beyond the reach of any gun in the castle of San Juan de Ulloa, at Vera Cruz.

The cost of this immense instrument for harbor defence will not exceed \$1700; or one sixth of the cost of the wrought iron gun procured in England by Capt. Stockton.

MEXICAN RANCHEROS.

The Ledger gives the following description of these people. The Rancheros, part of the material of the Mexican army, are half Indian and half Spanish in their extraction: gaunt, shrivelled, though muscular in their frames, and dark and swarthy visaged: these men are the Alabs of the American continent. Living half of the time in the saddle, for they are unrivalled horsemen, with lasso in hand, they traverse the vast plains in search of the buffalo and wild horse. The killing of these animals, and the preparation and sale of their hides, are their sole means of livelihood. Their costume generally consists of a pair of tough hide leggings, with saddles of the same material, bound together with leathern thongs, over which is a blanket with a hole in the centre large enough to allow the head to be thrust out, and which falls not ungracefully over their shoulders, leaving ample room for the play of their arms. Add to this a broad straw sombrero, and the lasso hanging ready for use in his girdle, and you have the Ranchero as he appears in time of peace. Join to this a lance with a sharp spear head, and his belt plentifully supplied with pistols and knives, and you have the Ranchero as a member of a troop of banditti, or a soldier in a body of cavalry. Their power of enduring fatigue is almost inexhaustible, and a scanty meal per day of jerk beef and plantain suffices them during months. These are the men who comprise the great body of the Mexican cavalry, and they are to the armies of that nation what the Cossacks are to the Russian-ever on the alert; never to be surprised, and untiring in the pursuit of the foe, when plunder, no matter how trifling, is to be obtained.

PODTBY.

FRIENDS ARE ALL AROUND US.

Friends are all around us,
Even the little child
Loves the stranger whom he met
Who looked on him and smiled.
Friends are all around us,
If as friends we greet
Those whom in our journeying
On life's worn way we meet.

Friends are all around us;—
By a kindly word,
By a look of sympathy
The loneliest heart is stirred.
Do not all our footsteps
To the same home tend?
Why should not each one of us
Be to each a friend?

Does the pure dew, glistening
On the fair wild rose,
Shun the dark, unlovely weed
That beside it grows?
Does the sun beam, shining
On the stately dome,
Lose its lustre when it rests
On the peasant's home?

If one heart grows lighter
By our words made glad—
If one weary spirit,
Drooping, taint and sad,
Half forgets its anguish
For a little while—
Is it vain for us to speak
Vain for us to smile?

One word kindly spoken,
Simple though it be,
Is often sweetest music
In the hour of agony;
One look, kindly given,
When the lips move not,
May be treasured in the heart,
Ne'er to be forgot.

There's an "open sesame"
To each human heart,
At whose magic sound, at once
Freely thrown apart,
Are the close-barred portals
Of its deepest cell,
Bidding us in friendship's name
Enter in and dwell.

Friends are all around us:—
There's a gentle tone
Whereso'er we wander,
Answering to our own.
Do not all our footsteps
To the same home tend?
Why should not each one of us
Be to each a friend?—Selected.

HOW TO GROW RICH.

In the first place, make up your mind to accomplish whatever you undertake, decide upon some particular employment, and then persevere in it. "All difficulties are overcome by dilligence and assiduity."

Be not afraid to work with your own hands, and dilligently too. "A cat in gloves catches no mice." "He who remains in the mill grinds, not he who

goes and comes."

Attend to your own business, and never trust it to another. "A pot that belongs to many, is ill stirred and worse boiled."

Be frugal. "That which will not make a pot, will make a pot-lid." "Save the pence, and the pounds will take care of themselves."

Be abstemious. "Who danties love,

shall beggars prove."

Rise early. "The sleeping fox catches no poultry." "Plow deep while sluggards sleep, and you will have corn to sell and keep."

Treat every one with respect and civility. "Every thing is gained and nothing lost by courtesy." Good manners

insure success."

Never anticipate wealth from any other source than labor; especially never place dependence upon becoming the possessor of an inheritance. "He who waits for dead men's shoes, may have to go a long time bare foot." "He who runs after a shadow, has a wearisome race."

Above all things never despair. "God is where he was." "Heaven helps those

who help themselves."

Follow implicitly these precepts, and nothing can hinder you from accumulating.—Western paper.

MECHANIC ARTS.

STRENGTH OF CORDS.—The best mode of estimating the strength of a cord of hemp, is to multiply by 200 the square of its number of inches in girth, and the product will express in pounds the practical strain it may safely be loaded with. For cables, multiply by 120 instead of 200. The ultimate strain is probably double this. For the utmost strength that a cord will bear before it breaks, a good estimate will be formed by taking one-fifth of the square of the girth of

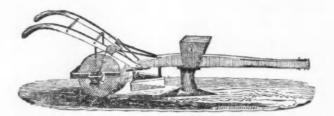
the cord to express the tons it will carry. This is about double the rule for practice just given above, and is, even for an ulterior measure, too great for tarred cordage, which is always weaker than white. In cables, the strength when twisted, is to the strength when the fibres are parallel, as about three to four.—New York Mechanic.

IOWA.

Constitution adopted—the State Convention held at Iowa for the purpose of forming a Constitution adjourned on the 19th ult. and presented to the people what is said to be an excellent Constitution. It availed itself of the various desirable provisions of the several State Constitutions, as well as of the United States. The boundary of the State runs up the Des Moines river, and along the Missouri boundary, and up the Missouri river to the middle of the main channel of the Big Sioux river. The State, according to the boundaries of the new Constitution, will contain about 50,000 square miles, or thirty-two millions of acres of the best land in the world ;which, divided into farms of 100 scres each, would make three hundred and twenty-two thousand farms. Suppose each farm to contain six persons, lowa would have a population of almost two millions.

The new Constitution provides that any free white person may vote who has been a resident of the State one year, and of the county twenty days. Sessions of the Legislature to be held biennially; the members of the house to be elected for two years, and those of the Senate The office of Lieutenant Governor is to be dispensed with; the Governor to be chosen for four years; his salary not to exceed \$1000 for the first ten years; that of the Judges the same. The members of the Legislature are to be paid \$2 per day for fifty days; after that \$1. District Judges to be elected by the people. Banking is prohibited, and all corporations to be provided for by general laws, the stockholders to be subject to such liabilities as shall be provided for by law.-Western paper.

To Candy Fruit.—Take it from the syrup, drain it dry, and roll it in finely-powdered sugar, and set it on a sieve in an oven, to dry.



BACHELDER'S CORN-PLANTER.

This (says Mr. Allen,) is the best machine we have yet seen for planting corn. The seed is put into the hopper above the beam, and as the horse moves along, the share below opens the furrow; the corn is then dropped by arms moving horizontally. These arms have holes in them of a proper size to receive any required number of grains, and as they pass in and out of the hopper the holes are sure to be filled with the seed, which is surely dropped into a tube conducting it to the bottom of the drill made by the share which is so formed that it passes under the surface at any required depth, and deposits the grain without turning over the earth. A triangular iron follows to remove all lumps and stones, and a roller to compress the earth over the seed. The dropping of the seed is always visible to the operator, and thus ensures his work being perfectly well done. The arms are made to drop the corn nearer or further apart by different sized wheels fastened on the crank, moving the arms quicker or slower as required. Those usually made here drop from two feet to four feet apart, as wished. The machine requires a small horse or mule to draw it, and with a boy to tend it and drive, will plant two to four acres per day, according to the width of the rows apart. Price \$10 00 to \$16 00.

From the Journal of Commerce.

PREPARATION OF WOOL.

More than one-half of all the American Fleece Wool exported from the United States of the last year's clip was owned and shipped by myself and by others having a joint interest with me. The purchases were all made at the lowest point of the season, beginning on the first day of October last. The result has been a net loss of \$5993, and 183 bales of wool yet unsold—equal only to the fraction of a penny sterling on each pound; and this loss arose from causes unnecessary, easily avoided, and entirely

within the control of parties in this

The prices of United States Fleece Wool are affected very injuriously in foreign markets by its unclean condition. It contains too much oil, and yolk, and dirt. The sheep are generally washed with too little care, and run too long after washing before shearing. A large portion of the wool from this cause must pass through the hands of those who sort it and scour it in soap and water, before it is sold to the manufacturers.

The wool itself is of superior staple, and while upon the sheep is inferior to no other in the world, of equal grade; and it may be safely stated, that every pound of oil, or other worthless substance, will, in the English markets, deduct from the value of the wool containing it, the price at least of two pounds of wool. English manufacturers and staplers before purchasing, open a portion of the fleeces, and examine carefully, not only the firmness but the *strength* of the staple, and its condition throughout.

Directions for Washing Sheep.—The first important operation in preparing our fleece wool for export, is to properly cleanse it before shearing. The sheep should be washed in clean running water—the water must run freely through every part of the fleece, and the wool and every part of it should be pressed and worked with the hands while under the water, until the dirt and oil are removed, and the water runs off clear. The shearing should then take place as soon as the sheep become dry after washing.

Then comes the tying up of the fleeces.

All the loose locks, clippings and tags, and every thing unclean, or of an inferior quality, and the coarse wool from the thighs, if there be any, should be wholly rejected; and the fleeces tied up firmly so as to keep their shape, and show as is

customary, the best part of the fleece on the outside.

This terminates the wool-grower's part—but I will here remark, that sheep should be kept as nearly as possible in uniformly good health and flesh, because every portion of the staple or fibre of the wool which grow while the sheep is very poor from disease or want of food, has so little strength as to break in working; and if this weak growth takes place in the fall of the year, it destroys the fleece for many purposes.

Sorting and Sacking.—The next step is to properly sort and sack the fleeces and direct them to the best market. This is the merchant's part, and more than a shipper's profit depends upon its being

performed understandingly.

In England each manufacturer devotes his attention to one particular decription of goods, for which his machinery has been constructed, and he makes no other. The makers of each kind of goods have established themselves mostly together in some one part of the kingdom, where they have a wool market of their own, in which they seek for the qualities and descriptions suitable for their purpose, and will buy no other. The broad-cloth makers in the west of England; the worsted combers of Yorkshire; the flannel manufacturers of Roshdale; and those that make hosiery in Nottingham, purchase in their several markets a supply suitable only for their own machine-So nice does this discrimination run, that the fleeces of fine wool, taken from the sheep of one year old which were never before shorn, are mostly sent to one part of the country, and there sold for one purpose, and the fleeces taken from the same sheep the next year, are sent to another part of the country, and there wrought into a very different kind of goods. Thus it is of very great importance that fleece wool for shipment, before it goes on board, should be sorted and sacked according to the grades of foreign manufacturers and suitable for their purpose, in order that it may be sold directly to them; otherwise, even if clean and in good order it must pass first through other hands, that re-sort it, re-sack it, and distribute it to various parts of the kingdom at considerable expense.

Size of Bales.—The size of the bales is the next thing to be kept in view. I

have paid on large shipments as high as one dollar per bale for "dock dues," without reference to the size of bales, while at some ports the charge is less than one-tenth part of that sum.

Customs in England give the purchaser an allowance on each bale called "the draft;" but the amount thus given varies in the different markets. I have accounts of sales made in different places, in which 2 lbs. and 3 lbs. and 4 lbs. and even 8 lbs, per bale is deducted for the draft, without reference to the size of the bale. This is established by the ancient usage of the different marksts, and must be complied with. The bales should therefore be of a size suited to their destination; but not too large, else they will not be lifted, but rolled over the docks and streets. Each sack should be firmly packed by a man inside, but never pressed by machinery, and every fleece of weak staple carefully rejected, and those fleeces packed by themselves.

The Shipment.—The wool should be placed on board dry; with the sacking whole and clean, and should always be sent as light freight in the upper part of the vessel. Our wool contains too much oil and gummy matter to be placed low in the ship, with heavy weights pressing upon it, without being in some degree injured by matting together.

This closes the part of the American

merchant.

Within the past year, I have sent more or less wool to every part of England, and to Wales, and to Scotland, comprising the various qualities grown in Illinois, Michigan, Ohio, Pennsylvania, New York, and Vermont. Nearly every invoice was accompanied with an intimation that it was not sent so much with a view to profit as to try their market, and hoping to receive in return suitable directions or suggestions for a better method of preparing and shipping such wools to England. The result has been a voluminous correspondence, giving ample details, and all the particulars required. It is from this correspondence and the results of those actual sales, as well as from personal observation and information, that I venture the opinions already expressed. I trust that past errors may be avoided in the future—and I now have done with the preparation and shipment.

HAMILTON GAY, New York.

TWENTY-ONE RIDDLES.

TWENTY-ONE RIDDLES.

1. Dean Swift often speaks of a Queen whose name, Read backward or forward is always the same.

2. Call a kitchen maid by it, and still the same name, Read backward or forward is always the same.

3. A prophet of old had a mother whose name, Read backward or forward is always the same.

4. And of female recluses we know that the name, Read backward or forward is always the same.

5. When you speak to a lady you'll find that the name, Read backward or forward is always the same.

6. When a child, you were dressed in a thing whose name, Read backward or forward, is always the same.

7. Then too, you were fed with something whose name, Read backward or forward is always the same.

8. You may travel abroad in a carriage whose name, Read backward or forward is always the same.

9. You may pass over a flat piece of ground whose name,

9. You may pass over a flat piece of ground whose name, Read backward or forward is always the same, 10. Where the lamb trots about by a creature whose name, Read backward or forward is always the same.

Read backward or forward is always the same.

11. You may go out and walk at an hour whose name, Read backward or forward is always the same.

12. Or you may ride at a subsequent hour whose name, Read backward or forward is always the same.

13. If you fire a gun, you'll hear something whose name, Read backward or forward is always the same.

14. And your dog may hunt well though no longer his name, Read backward or forward is always the same.

15. Vour hird too, may sicken on something whose name.

Your bird, too, may sicken on something whose name, Read backward or forward is always the same.
 You may quaff a strong drink, made of wheat, whose name,

16. You may quaff a strong drink, made of wheat, whose not have a giant whose dwarfish name, Read backward or forward is always the same.

17. Or stare a giant whose dwarfish name, Read backward or forward is always the same.

18. But this you can't do with a thing whose name, Read backward or forward is always the same.

19. If you write in defence of sound doctrine, its name, Read backward or forward is always the same.

20. Do but take a sly look, and of this too, its name, Read backward or forward is always the same.

21. Nay, whatever is done, believe me its name, Read backward or forward is always the same.

(Western Pap. Western Paper.

A Spelling Puzzle.—A laughable circumstance took place at a trial in Lancashire, where the head of the family was examined as a witness; upon giving his name, the judge, not being able to pronounce it, said to him, "Pray, sir, how do you spell et?"
The old gentleman replied, O double T I double U E double L double U double O D," whereupon the astonished law-giver laid down his pen, saying that it was the most extraordinary name he had ever met with in his life, and after several attempts, declared he was unable to record it. What was his name ?- Eng. Paper.

Comfortable Habitations for the Poor with Gardens Attached .- Many small capitalists in country places find a profitable investment for their little moneys in buying old stables, and outhouses of various kinds, and converting them into human habitations. A large old cottage, originally adapted for one family, will be divided into three or four tenements, with scarcely any garden ground to each. For these the allotment system of the Laborer's Friend Society seems to be especially Nothing can compensate for the adanted. moral evils resulting from crowding families together: and men, finding their houses un-comfortable and no garden employment for their spare time, resort to the beer house and the public house, and are thereby debased and degraded, and, in fact, ruined. I know of no remedy for this, but by comfortable cottages erected for the use of all young and newly married people.—T. M. Reigate.

RECEIPTS.

Fruit Candied .- When the fruit is preserved, take it from the syrup, dry it in an oven, then dip it in sugar boiled to candy weight, and dry it again.

Currant Ice Water .- Press the Juice from ripe currants; strain it clear; to one pint of juice put nearly a pland of loaf sugar. When wanted for use, put to it ice water enough to make a pleasant drink. Grate nutmeg over, and serve. Or, it may be frozen like ice cream; for this, it should be sweet and rich.

ENIGMA, No. 13.

I am composed of fourteen letters. My 1, 2, 5, 13, 14, is a bird that feeds on fish.

My 3 10, 14, 7, 6, 13, is a messenger. My 4, 10 7, 8, is an aquatic bird. My 12, 9, 2, 2, 14, means brightness. My 11, 2, 7, 5, 2, 2, is a law.

My whole is a steamboat on the North River.

Mr. Editor,—I have been much pleased and instructed with the perusal of your paper. The Enigmas especially have been a source of amusement. By inserting the following you will oblige

Yours, &c., E. S., St. Thomas Hall, Flushing. ENIGMA, No. 14.

My 1, 8, 5, is a vegetable.

My 1, 2, 3, is an animal. My 2, 9, 4, 5, is the place where some birds build their nests.

My 6, 7, 2. 8, 4, is transparent.

My 6, 4, 8, 3, 2, is a machine. My 6, 7, 8, 3, is a sect. My 1, 8, 9, is a song.

My whole is a name dear to many people in the United States.

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